

# WISCONSIN FOREST MANAGEMENT GUIDELINES

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*October, 2003*

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## FOREWORD

**Dear Wisconsin Woodland Owner, Forest Enthusiast or Resource Professional:**

Wisconsin is fortunate to have more than 15,000,000 acres of forestland. During the last century, we learned the phenomenal value of our forests after nearly losing them to land use conversion and fires. Future social, economic and environmental pressures will be different, but we have a duty as a society to find ways to meet our needs without imperiling the productivity of forests for future generations. That is the goal of sustainable forestry, outlined in the chapters to follow.

Agreeing on measures to protect forest ecosystems while addressing our many values and needs is complex. The Department of Natural Resources (DNR) welcomes broad discussion of the principles of sustainable forestry. To that end, a draft edition of *Wisconsin's Forest Management Guidelines (FMG)* was distributed for public review between October 2002 and March 2003.

Hundreds of comments received in the course of five open house meetings and from letters were considered in developing this updated edition. Not every suggestion could be incorporated (some being in conflict, depending on the perspectives of the respondents), but the DNR made a sincere effort to craft a practical reference within time and budget constraints. I hesitate to call it a "final version," recognizing that more opportunities for improvement will be discovered as we use the FMG. Future editions will be released as changes are accumulated.

Keep in mind that the FMG is not meant to be an exhaustive textbook. Our goal is to establish basic, sensible concepts that outline responsible resource management at the site-level. Other technical publications should be used to learn details or explore additional landscape scale considerations. Although application of the FMG is voluntary, the document does refer to statutes, administrative rules and programs that could involve mandatory procedures or prohibitions. In those situations, users are encouraged to review original source regulations for specifications that may not be covered here.

The FMG is written for resource managers and enthusiasts. Our hope is that it is straightforward and appealing enough to be understood with little effort. A companion version designed for woodland owners and others looking for a simpler presentation is being developed and will be made available in 2004.

The Wisconsin DNR owes a debt of gratitude to the Minnesota Forest Resources Council, who granted permission to base this manual on a similar project completed in Minnesota a few years ago. We are pleased to be able to build on Minnesota's process, which was an Herculean effort involving more than 80 partner organizations, hundreds of meetings, and more than three years worth of time. Perhaps they will find something new in our efforts that will be useful for them.

In whatever way you are involved in the forests of Wisconsin, I hope you find this guide helpful. Your commitment to protect and sustainably-manage Wisconsin's forests is greatly appreciated.

Sincerely,



Paul DeLong  
Chief State Forester



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**Purpose**



## THE PURPOSE OF INTEGRATED GUIDELINES



*Figure A: Autumn in northern Wisconsin shows the diversity found in a mixed conifer and hardwood forested landscape.*

### How this Guidebook is Organized

Because this guidebook has been designed for a variety of audiences, some landowners may find it to be more technical than they need, while some resource managers may find it to be more basic than they might prefer. Some readers will be more interested in an overall understanding of “why” a particular resource (forests, wildlife, water, soils, visual quality, or cultural resources) is important relative to overall sustainability, and “why” particular strategies are employed in their management. Other readers will be more interested in “how to” implement a particular activity or practice needed to carry out a management strategy. They would like to know, for example, “how to” construct a forest road, or develop a forest management plan, or design and administer a timber harvest.

**Part one of the guide – Chapters 1 through 8** – is designed to address the “whys” of each of a number of important resource components. Why do the forests of Wisconsin look like they do – how are they changing? Why are various timber stands harvested differently? What are the key issues related to wildlife management and the protection of water resources, riparian areas, soils, and cultural resources? Why is visual quality an important resource consideration, and what trade-offs need to be considered? Why are economic considerations an important component of the forest management decision-making process?

### Part two of the guide – Chapters 9 through 18 –

focuses on the “how” of specific activities that are normally carried out in the management of a forest. It begins with the development of a well-considered, ecologically-based forest management plan, and then presents integrated guidelines related to a number of “on-the-ground” activities necessary to carry out such a plan.

Obviously there is linkage between “why” and “how” a resource is managed. The management of any one resource also impacts others. The implementation of any one specific management activity must be considered from many perspectives. Readers are encouraged to explore the entire guide in order to gain a more complete understanding of any particular plan of action before proceeding.

**Part three of the guide** contains additional resources, ranging from a glossary of terms to a list of additional resources and sources of assistance.

### • IMPORTANT NOTE •

The **WISCONSIN'S FORESTRY BEST MANAGEMENT PRACTICES (BMPs) FOR WATER QUALITY FIELD MANUAL** has been incorporated into and is found throughout this guide. BMPs are identified by the “✓” symbol.



## THE CONCEPT OF INTEGRATED GUIDELINES

**Sustainability** means meeting the needs of the present without compromising the ability of future generations to meet their own needs. **Sustainable forestry** is a proactive form of management that provides for the multiple uses of the forest by balancing a diversity of both present and future needs. It is a process of informed decision-making that takes into account resource needs, landowner objectives, site capabilities, existing regulations, economics, and the best information available at any given time.

Those concerned about forest management have long recognized the challenge of balancing social, economic, and environmental objectives and implications. They also recognize the complex relationship between forest management practices and the long-term sustainability of our forests.

Integrated resource management approaches, comprehensive planning, and recommended practices and guidelines are not new ideas. So what is new? Three things:

- The concept of one set of integrated guidelines to support the sustainability of many different resources within forest communities.
- The recognition that guidelines should be designed to accommodate a wide range of resource needs, landowner objectives, and site conditions.

- The idea of a broad-based, collaborative approach to developing user-friendly guidelines applicable to forests throughout Wisconsin.

**This concept of integrated guidelines recognizes the forest as a community of related resources, rather than a collection of separate resources.** Integrated guidelines reflect the forest ecosystem that they are designed to help sustain.

### Who Will Use the Guidelines?

These forest management guidelines have been developed for use by forest landowners, resource managers, loggers, contractors, and equipment operators, who share a concern for balancing forest management activities and the long-term sustainability of forest resources. Although many individuals may participate in managing a particular site, final decisions regarding guideline implementation lie with the landowner.

These guidelines were designed to help landowners, resource managers, and loggers determine how to protect the functions and values of forest resources during forest management activities. They do not provide advice on whether to manage or which management activities are needed.



*Figures B and C: Sustaining forest resources for future generations depends on balancing a diversity of social, economic and environmental objectives, including production of timber for wood and paper products.*



## FACTORS THAT MAY AFFECT IMPLEMENTATION

Generally speaking, these guidelines are informational and voluntary. They are designed to help landowners and resource managers meet today's needs while also maintaining ecosystem integrity and productivity for future generations. Any federal, state and local regulations, however, whether or not referenced by these guidelines (such as endangered species laws, pesticide rules, permitting requirements, zoning ordinances, etc.), take precedence and must be observed. Landowners voluntarily participating in formal incentive programs such as Wisconsin Forest Landowner Grant Program or the Managed Forest Law are obliged to comply with the statutes and rules that apply, some of which may be reflected in these guidelines.

**Parts of these guidelines also have special significance to private consulting foresters, and industrial forest products companies** that voluntarily participate in Wisconsin's Cooperating Forester Program. Section NR 1.213 (3)b, Wisconsin Administrative Code, provides that a cooperating forester "shall manage private lands where the cooperator provides service in a manner which maintains the long-term capacity of the land to provide forest products, uses and values desired by landowners in accordance with the silvicultural guidelines in department handbooks and directives or a written, science-based forest management commitment submitted to and approved by the department in advance." For purposes of administering the Cooperating Forester Program, compliance with the following sections of these guidelines is considered mandatory:

- **Generally Accepted Regeneration Methods by Cover Type found in Table 2-1**, Chapter 2, page 41, unless the DNR has approved an exception described in a science-based forest management commitment submitted by the cooperator. The regeneration methods designated in the table have been substantiated by forestry research, and have been found to be reliable techniques for manipulating forest vegetation with predictable results. Since our understanding of forest ecology and silvics is constantly evolving, the management commitment option allows the adoption of new techniques as they are proven.

- **Wisconsin's Forestry Best Management Practices for Water Quality (BMPs)**, designated by the symbol "✓" found throughout these guidelines. Wisconsin BMPs identify and explain guidelines for landowners, loggers and land managers to protect water quality. They were prepared in response to federal legislation. Section 208 of the 1977 Clean Water Act requires each state to develop plans and procedures to control "silviculturally related nonpoint sources of pollution ... to the extent feasible." Section 319 of the 1987 Water Quality Act requires each state to develop and implement a program to reduce nonpoint source pollution to the "maximum extent practicable." Compliance with Wisconsin BMPs will help meet our federal obligations.

Cooperating foresters must also abide by federal, state and local regulations, including those related to forest incentive programs administered by the DNR. Implementation of other information presented in these guidelines is encouraged, but not mandatory.



*Figure D: Harvesting timber stands can contribute to the long-term health, productivity and sustainability of valuable forest resources.*



## WHAT THE GUIDELINES ARE



*Figure E: Integrated guidelines recognize the forest as a community of related resources, rather than a collection of separate resources.*

- The guidelines are designed to be flexible, recognizing that both site conditions and landowner objectives vary. Determining the most appropriate guidelines for implementation on a particular site depends on the informed judgment of the landowner, resource manager, or logger responsible for that site.
- It may be possible to implement several guidelines simultaneously in some instances. For example, trees left to protect cultural resources may also satisfy most guidelines for wildlife, as well as apparent harvest size guidelines for visual quality.
- Implementation of the guidelines is voluntary, except as noted previously.
- The guidelines are designed to help forest landowners, resource managers and loggers meet two goals:
  - Conduct forest management activities while addressing continued long-term sustainability of diverse forest resources.
  - Promote or enhance the functions and values of water and soil resources, riparian areas, wildlife habitat, visual quality, and cultural resources.
- The guidelines represent practical, sound, and generally-accepted practices based on the best available scientific information.
- The guidelines are designed to assist with site-level forest management. They are not designed to provide broad-based landscape direction.



## WHAT THE GUIDELINES ARE NOT

- The guidelines are not a substitute for a resource management plan. They are intended to support implementation of a plan once it is in place.
- The guidelines are not intended to replace any existing rules or regulations.
- The guidelines are not intended as a substitute for obtaining professional assistance as needed to achieve management objectives, or meet appropriate engineering standards. They are guidelines – not construction standards or engineering specifications.
- The guidelines are not designed to help determine whether a particular forest management activity should or should not occur. They are designed, instead, to provide guidance in how to implement a particular forest management activity.
- The guidelines are not intended to address all forest management activities and all forest resources. They address major forest management activities as they relate to selected components of a healthy forest.
- The guidelines do not address landscape scale considerations and issues. Landscape-level assessment, planning, and management issues are complex, and beyond the scope of these guidelines.



*Figure F: Professional natural resource managers and educators like these are available across the state to assist landowners in the sustainable management of their forests. Contact your local Wisconsin DNR office for a copy of the Directory of Foresters, and see the Resource Directory in this manual for additional sources of information.*